

CLAIMS

What is claimed is:

1. A method for representing flow with a medical imaging system, the method comprising:

- (a) determining a rate of change of a parameter; and
- (b) displaying a change in the parameter over time as a function of the rate of change.

2. The method of Claim 1 wherein (a) comprises:

- (a1) determining flow direction and magnitude; and
 - (a2) determining the rate of change as a function of the flow direction and magnitude;
- wherein (b) comprises displaying the change as a perceived motion of a pixel.

3. The method of Claim 1 wherein (b) comprises displaying a pattern for a plurality of pixel locations, the pattern varying as function of the rate of change.

4. The method of Claim 1 wherein (a) comprises determining the rate of change as proportional to motion for pixels associated with flow.

5. A method for representing flow with a medical imaging system, the method comprising:

- (a) assigning first display values to each of a first plurality of spatial locations;
- (b) tracking a flow direction and magnitude for each of the first plurality of spatial locations;
- (c) identifying a second plurality of spatial locations as a function of the flow directions and magnitudes; and

(d) assigning second display values to each of the second plurality of spatial locations as a function of the first display values.

6. The method of Claim 5 wherein (a) comprises generating a first pattern for the first plurality of spatial locations for a first image, the first plurality of spatial locations associated with flow, and (d) comprises generating a second pattern for the second plurality of spatial locations for a second image, the second plurality of spatial locations associated with flow, each of the second plurality of spatial locations of the second pattern responsive to the first pattern shifted by the flow direction and magnitude for each of first plurality of spatial locations.

7. The method of Claim 5 wherein (a) comprises assigning as a function of a random field with a normal distribution.

8. The method of Claim 5 wherein (a) and (d) comprise assigning at least one characteristic the first and second display values as one of: modulated gray scale values, color, hue and combinations thereof.

9. The method of Claim 8 further comprising:

(e) modulating the first and second display values also as a function of at least one of B-mode signals and color flow signals.

10. The method of Claim 5 wherein (d) comprises assigning the second display values as a weighted combination of the first display values and a pattern function.

11. A method for representing flow with a medical imaging system, the method comprising:

(a) generating a first pattern for a plurality of pixels associated with flow for a first image; and

(b) generating a second pattern for the pixels associated with flow for a second image, the second pattern responsive to the first pattern.

12. The method of Claim 11 wherein (a) comprises generating the first pattern with a normal distribution with a width of the distribution being a function of a variance of flow.

13. The method of Claim 11 wherein (a) comprises modulating gray scale values of pixel display values for the plurality of pixels.

14. The method of Claim 13 further comprising:
(c) modulating a color of the pixel display values for the plurality of pixels as a function of a flow characteristic.

15. The method of Claim 13 further comprising:
(c) modulating the gray scale pixel display values also as a function of B-mode signals for the plurality of pixels.

16. The method of Claim 11 wherein (b) comprises generating the second pattern as representing movement of the first pattern.

17. The method of Claim 11 further comprising:
(c) determining a flow direction and magnitude for each of the plurality of pixels;
wherein (b) comprises generating the second pattern as a function of the flow direction and magnitude.

18. The method of Claim 11 wherein (a) and (b) comprise indicating a direction of flow with a shift of the first pattern to a different position, the second pattern including information from the shifted first pattern.

19. The method of Claim 11 wherein (a) and (b) comprise indicating a magnitude of flow with a shift of the first pattern to a different position, the second pattern including information from the shifted first pattern.

20. A system for representing flow in medical imaging, the system comprising:

a processor operable to generate an at least partially persistent pattern in each of at least two images, the persistent pattern shifted as a function of at least one of: flow direction, flow magnitude and combinations thereof; and
a display operable to display the at least two images.

21. The system of Claim 20 wherein the processor is operable to assign a first pattern to each of a first plurality of spatial locations in a first of the at least two images, to track a flow direction and magnitude for each of the first plurality of spatial locations, to identify a second plurality of spatial locations as a function of the flow direction and magnitude, and to assign second display values to each of the second plurality of spatial locations in a second of the at least two images as a function of the first display values.